

DERWENT-ACC-NO: 2001-317714

DERWENT-WEEK: 200348

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TITLE: Laser device comprises a semiconductor laser element emitting a first laser light of a first wavelength, and a surface-emitting semiconductor element excited by the first laser light

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PRIORITY-DATA: 1999JP-0257531 (September 10, 1999)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES
MAIN-IPC			
US 6594297 B1 005/00	July 15, 2003	N/A	000 H01S
DE 10043896 A1 005/04	April 26, 2001	N/A	021 H01S
JP 2001148536 A 005/065	May 29, 2001	N/A	010 H01S

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO	APPL-DATE
US 6594297B1 11, 2000	N/A	2000US-0659847	September
DE 10043896A1 2000	N/A	2000DE-1043896	September 6,

JP2001148536A N/A
2000

2000JP-0258857 August 29,

INT-CL (IPC): H01S003/08, H01S003/091, H01S005/00, H01S005/04,
H01S005/065, H01S005/18, H01S005/323, H01S005/40

ABSTRACTED-PUB-NO: DE 10043896A

BASIC-ABSTRACT:

NOVELTY - Laser device comprises a semiconductor laser element emitting a first laser light of a first wavelength; and a surface-emitting semiconductor element which is excited by the first laser light and has a structure for controlling a spatial mode of a second laser light.

DETAILED DESCRIPTION - Preferred Features: The structure has a dimension which is 0.1-10 times as large as the diameter on which the second laser light is spread on one point of the structure. The semiconductor laser element has a first active layer made of a $\text{In}_{v_2}\text{Ga}_{1-v_2}\text{N}$ material and a second active layer made of a $\text{In}_{v_1}\text{Ga}_{1-v_1}\text{N}$ material (where 0 less than v_1 less than v_2 less than 1).

USE - As a semiconductor laser device.

ADVANTAGE - High speed modulation of the laser light is achieved.

CHOSEN-DRAWING: Dwg.0/12

TITLE-TERMS: LASER DEVICE COMPRIZE SEMICONDUCTOR LASER ELEMENT EMIT FIRST LASER

LIGHT FIRST WAVELENGTH SURFACE EMIT SEMICONDUCTOR
ELEMENT
EXCITATION FIRST LASER LIGHT

DERWENT-CLASS: L03 V08

CPI-CODES: L04-A02D; L04-E03B;

EPI-CODES: V08-A02B; V08-A03B; V08-A04A;

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C2001-098110

Non-CPI Secondary Accession Numbers: N2001-228115